SUBJECT INDEX

Abrasion loss, p. 56
Aging resistance, p. 148
Antioxidants
  nonextractable, p. 148
  nonvolatile, p. 148
  rubber bound, p. 148
Belting application, p. 39
Blend compatibilization, p. 253
Blowing agent, p. 305
Bromo XP-50, p. 39
Capillary viscometer, p. 138
Carbon black, pp. 11, 117
  inter-aggregate network, p. 11
  network recovery, p. 11
  particle size, p. 11
  structure, p. 11
  type, p. 11
Carboxylated nitrile rubber, p. 239
Carpet waste, p. 79
Chain extender, p. 182
Chemical binding, p. 148
Chopped fabric, p. 56
Chopped fiber, p. 117
Chuncking, p. 56
Closed cell microcellular rubber, p. 305
Composites, p. 79
Constitutive equation, pp. 348, 368
Convective turbulators, p. 200
Corona discharge, p. 253
Covulcanization, p. 239
Crosslinking, pp. 168, 329
Crystallinity, pp. 168, 182
Crystallization, p. 168
Curing kinetics, p. 329
Degree of vulcanization, p. 329
Diphenylamine, p. 148
Dynamic mechanical analysis, p. 268
Dynamic mechanical testing, p. 11
  frequency sweep, p. 11
  strain sweep, p. 11
  temperature sweep, p. 11
Dynamic rheometric function, p. 329
Dynamic strain, p. 305
Dynamic viscoelastic properties, p. 305
E-beam, p. 117
Elastic and viscous torques, p. 329
Elastomer, pp. 182, 268
Emulsion polymerization, p. 281
EPDM, pp. 117, 305
EPDM rubber, p. 223
Epoxidized natural rubber, p. 268
Ethylene vinyl acetate, p. 268
Ethylene-vinyl-acetate copolymer, p. 168
Exergy analysis, p. 200
Extrudate behavior, p. 138
Fabric chopper, p. 56
Fatigue life, p. 56
Fiber, p. 117
Fiber-reinforced polymer, p. 117
Fiber waste, p. 79
Free energy of deformation, p. 348
FTIR spectroscopy, p. 268
Ground rubber tire, p. 253
Hard segment, p. 182
Heat and flux resistance, p. 39
Heat of vulcanization, p. 239
Heat transfer enhancement, p. 200
Interchain crosslinking, p. 239
Interfacial adhesion, p. 117
Irradiated films, p. 168
Isobutylene-paramethylstyrene copolymer, p. 39
Isocyanate, p. 182
Laser-grating system, p. 91
Latex paints, p. 281
Latex reclaim, p. 138
Loss tangent, p. 368

SUBJECT INDEX

Abrasion loss, p. 56
Aging resistance, p. 148
Antioxidants
  nonextractable, p. 148
  nonvolatile, p. 148
  rubber bound, p. 148
Belting application, p. 39
Blend compatibilization, p. 253
Blowing agent, p. 305
Bromo XP-50, p. 39
Capillary viscometer, p. 138
Carbon black, pp. 11, 117
  inter-aggregate network, p. 11
  network recovery, p. 11
  particle size, p. 11
  structure, p. 11
  type, p. 11
Carboxylated nitrile rubber, p. 239
Carpet waste, p. 79
Chain extender, p. 182
Chemical binding, p. 148
Chopped fabric, p. 56
Chopped fiber, p. 117
Chuncking, p. 56
Closed cell microcellular rubber, p. 305
Composites, p. 79
Constitutive equation, pp. 348, 368
Convective turbulators, p. 200
Corona discharge, p. 253
Covulcanization, p. 239
Crosslinking, pp. 168, 329
Crystallinity, pp. 168, 182
Crystallization, p. 168
Curing kinetics, p. 329
Degree of vulcanization, p. 329
Diphenylamine, p. 148
Dynamic mechanical analysis, p. 268
Dynamic mechanical testing, p. 11
  frequency sweep, p. 11
  strain sweep, p. 11
  temperature sweep, p. 11
Dynamic rheometric function, p. 329
Dynamic strain, p. 305
Dynamic viscoelastic properties, p. 305
E-beam, p. 117
Elastic and viscous torques, p. 329
Elastomer, pp. 182, 268
Emulsion polymerization, p. 281
EPDM, pp. 117, 305
EPDM rubber, p. 223
Epoxidized natural rubber, p. 268
Ethylene vinyl acetate, p. 268
Ethylene-vinyl-acetate copolymer, p. 168
Exergy analysis, p. 200
Extrudate behavior, p. 138
Fabric chopper, p. 56
Fatigue life, p. 56
Fiber, p. 117
Fiber-reinforced polymer, p. 117
Fiber waste, p. 79
Free energy of deformation, p. 348
FTIR spectroscopy, p. 268
Ground rubber tire, p. 253
Hard segment, p. 182
Heat and flux resistance, p. 39
Heat of vulcanization, p. 239
Heat transfer enhancement, p. 200
Interchain crosslinking, p. 239
Interfacial adhesion, p. 117
Irradiated films, p. 168
Isobutylene-paramethylstyrene copolymer, p. 39
Isocyanate, p. 182
Laser-grating system, p. 91
Latex paints, p. 281
Latex reclaim, p. 138
Loss tangent, p. 368

Masterbatch technique, p. 239
Mastication, p. 148
Materials engineering, p. 117
Mechanical properties, p. 168
Mechanism of large deformation, p. 348
Medium strain rate, p. 91
Mill crushed fabric, p. 56
Mining industry, p. 39
Morphology, p. 182
Moving die rheometer, p. 329
Natural rubber, pp. 138, 148
NBR, p. 329
Network structure, pp. 348, 368
Nonisothermal vulcanization, p. 329
Nonlinear viscoelastic model, p. 91
Oscillating bicone cells, p. 329
Oscillating disk rheometer, p. 329
Paraphenylenediamine, p. 148
Phase morphology, p. 239
Photomicrograph, p. 56
Physicomechanical properties, p. 281
Plastic heat exchanger, p. 200
Plastic waste, p. 79
Plasticizers, p. 11
Polyacrylic rubber, p. 239
Polyblend, p. 239
Polyester-polyurethane, p. 368
Polyether-polyurethane, p. 368
Polyethylene low density, p. 168
Polyfunctional monomers, p. 223
Polymer blend, p. 253
Polypropylene, p. 168
Polyurethane, p. 182
Polyurethane elastomers, p. 348
Preblending technique, p. 239
Processability testing, p. 11
Radiation, p. 117
Radiation crosslinking, p. 223
Radiation vulcanization, p. 223
Rayon cord, p. 91
Relaxation activation energy, p. 368
Rubber, pp. 117, 268
Rubber blends, p. 138
Rubber composite, p. 91
Rubber-plastics blends, p. 268
Rubber recycling, p. 253
SEM, p. 117
Semicontinuous technique, p. 281
Shear modulus, pp. 11, 368
Short fibers, p. 56
Silica filler, p. 305
Simulation of torque evolution, p. 329
Solid waste, p. 79
Strain-induced crystallization, p. 348
Stress relaxation, p. 368
Surface oxidation, p. 253
Swelling index, p. 56
Tan (δ) after vulcanization, p. 11
Tan (δ) before vulcanization, p. 11
Tensile impact testing equipment, p. 91
Tensile strength, p. 168
Theory of viscoelasticity, pp. 348, 368
Thermal dependent moduli, p. 329
Thermokinetic parameters, p. 329
Thermoplastic, p. 182
Thermo-rheological and kinetic model, p. 329
Trapped entanglement, p. 348
UHMW-PE, p. 117
Uniaxial extension, p. 368
Vibration control, p. 39
Vinyl acetate, p. 281
Viscoelastic behaviors, pp. 348, 368
Vulcanization, pp. 117, 329
Waste dipped fabric, p. 56

AUTHOR INDEX

Abd El-Ghaffar, M. A., p. 281
Abdel-Aziz, M. M., p. 223
Abdel-Barry, E. M., p. 117
Avirah, S. A., p. 148
Badran, A. S., p. 281

(continued)

Author Index (continued)
Baker, W. E., p. 253
Bhowmick, A. K., p. 268
Bortolozzi, R. A., p. 329
Chandra, A. K., p. 56
Chen, H., pp. 348, 368
Costemalle, B., p. 39
Das, C. K., p. 239
Deiber, J. A., p. 329
Dick, J. S., p. 11
Du, X., p. 91
El-Halwagi, M., p. 79
El Miligy, A. A., p. 223
Francis, D. J., p. 138
Fusco, J. V., p. 39
George, K. E., p. 138
George, R. S., p. 138
Gowayed, Y. A., p. 79
Guriya, K. C., p. 305
Hu, C. J., pp. 348, 368
Joseph, R., pp. 138, 148
Kamel, I., p. 117
Kannan, S., p. 268
Kenney, D. J., p. 182
Kruse, D. F., p. 39
Mathew, N. M., p. 268
Minkova, L., p. 168
Morcos, V. H., p. 200
Mukhopadhyay, R., p. 56
Nando, G. B., p. 268
Nizar, K. M. A., p. 56
Pawlowski, H. A., p. 11
Pramanik, P. K., p. 253
Ramadan, A. M., p. 281
Shafey, H. M., p. 200
Shaffei, K. A., p. 281
Shaker, M., p. 117
Shaltout, N., p. 223
Shen, Y. D., p. 368
Singha Roy, S. K., p. 239
Sodeva, D., p. 168
Song, M. S., pp. 348, 368
Tripathy, D. K., p. 305
Vaidyanathan, R., p. 79
Wan, Z., p. 91
Wang, C.-S., p. 182
Zhang, Q., p. 91